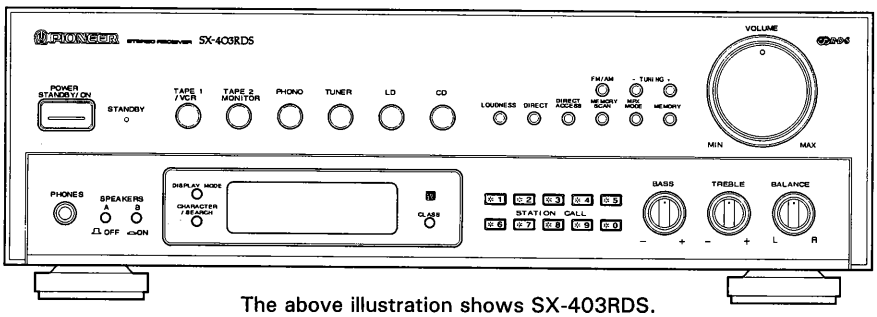
Operating Instructions

STEREO RECEIVER
SX-403RDS
SX-303RDS
SX-203RDS



The above illustration shows SX-403RDS.

Thank you for buying this Pioneer product.
Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

IMPORTANT

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT

FOR USE IN THE UNITED KINGDOM

The wires in this mains lead are coloured in accodance with the following code:
blue : neutral
brown : live
If the plug provided is unsuitable for your socket outlets, the plug must be cut off and a suitable plug fitted.

The cut-off plug should be disposed of and must not be inserted into any 13 amp socket as this can result in electric shock. The plug or adaptor or the distribution panel should be provided with 5 amp fuse. As the colours of the wires in the mains lead of this appliance may not correspond with coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Do not connect either wire to the earth terminal of a three pin plug.

NOTE
After replacing or changing a fuse, the fuse cover in the plug must be replaced with a fuse cover which corresponds to the colour of the insert in the base of the plug or the word that is embossed on the base of the plug, and the appliance must not be used without a fuse cover. If lost, replacement fuse covers can be obtained from your dealer.

Only 5 A fuses approved by B.S.I. or to A.S.T.A. to B.S. 1362 should be used.

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PIONEER®
The Art of Entertainment

FEATURES

■ Equipped with RDS (Radio Data System)

- PS (Program Service Name) display.
- PTY (Program Type) display.
- RT (Radio Text) display of up to 64 characters.
- Manual station name input. (Four characters, FM/AM 30 stations)
- Broadcast station search by program type.

■ A built-in attenuator (RF ATT) can be switched on or off for proper reception of strong broadcast stations.

■ Random 30-stations Presetting

A total of 30 FM and AM stations can be preset into the memory circuit.

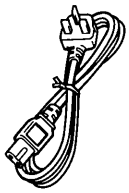
■ Even the slightest deterioration of sound quality is avoided by the extensive use of anti-vibration parts.

- Aerowing chassis
- Large insulator.
- All parts are carefully selected to achieve high sound quality.

CHECKING ACCESSORY ITEMS

FM T type Antenna

AM Loop Antenna



AC power cord

Remote control unit
(Except for SX-203RDS)

Dry cell batteries (SIZE "AA" (R6P))
(Except for SX-203RDS)

INSTALLATION

LOCATION

Install the receiver in a well-ventilated location where it will not be exposed to high temperature or humidity.

Do not install the receiver in a location which is exposed to direct rays of the sun, or near hot appliances or radiators. Excessive heat can adversely affect the cabinet and internal components. Installation of the receiver in a damp or dusty environment may result in malfunction or accident. (Also avoid installation near cookers etc., where the receiver may be exposed to smoke from oil, steam or heat.)

POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed in such a way that they are not likely to be stepped on. A damaged power cord can cause fire or give you an electrical shock. Check the power cord regularly. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

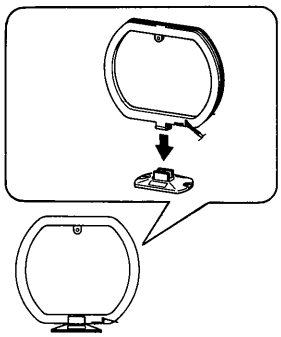
MAINTENANCE OF EXTERNAL SURFACES

- Use a polishing cloth or dry cloth to wipe off dust and dirt.
- When the surfaces are very dirty, wipe with a soft cloth dipped in some neutral cleanser diluted five or six times with water, and wrung out well, and then wipe again with a dry cloth. Do not use furniture wax or cleaners.
- Never use thinners, benzine, insecticide sprays and other chemicals on or near this unit, since these will corrode the surfaces.

CONNECTIONS

Setting up the AM Antenna

- Insert the claw on the bottom of the antenna into the groove in the leg.
- Place the antenna on a level surface and rotate it to locate the orientation that yields the best reception.
- To permanently fix the antenna, screw the leg to a wall or something similar before assembling (fixing the antenna in the direction that gives the best reception).



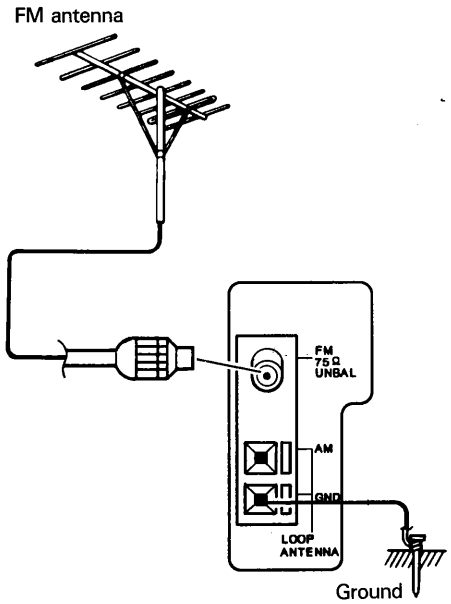
EXTERNAL FM ANTENNA

The main advantage of FM over AM is the quality of the broadcast signal. In order to benefit fully from the high signal quality of FM broadcasts, it is recommended that a special-purpose FM antenna be installed. In weak signal areas, a multi-element (3 element, 5 element, 7 element, etc.) antenna should be used.

FM OUTDOOR ANTENNA CONNECTIONS

If an FM antenna has already been erected outdoors, connect it, referring to the figure.

Connecting the coaxial cable



GROUNDING

Grounding is recommended if reception of FM programs is impaired by noise. To ground, connect a thick polyvinyl insulated wire to the GND terminal and attach the other end to a metal water pipe or grounding bar or wind it around a copper plate and bury it.

NOTE:

Never connect a wire to a gas pipe for grounding since sparks may ignite the gas.

EXTERNAL AM ANTENNA

If it is not possible to obtain adequate AM reception even by changing the orientation of the AM loop antenna, a separate indoor antenna, or an outdoor antenna should be installed.

INDOOR AM ANTENNA

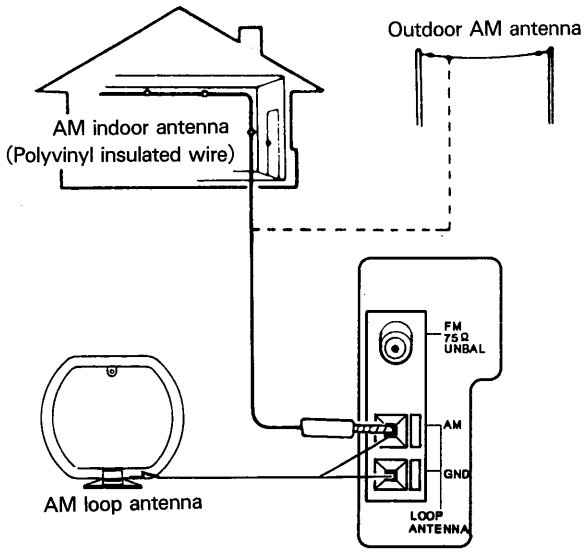
Use a polyvinyl insulated wire (5 – 6m:17 – 20 feet) and connect one end to the AM antenna terminal and affix the other end to the wall or ceiling, as high as possible.

OUTDOOR AM ANTENNA

If reception quality is not improved sufficiently even when an indoor antenna is used, a polyvinyl insulated wire should be installed outside and fixed in place.

NOTE:

Do not detach the AM loop antenna when using an indoor or an outdoor AM antenna.

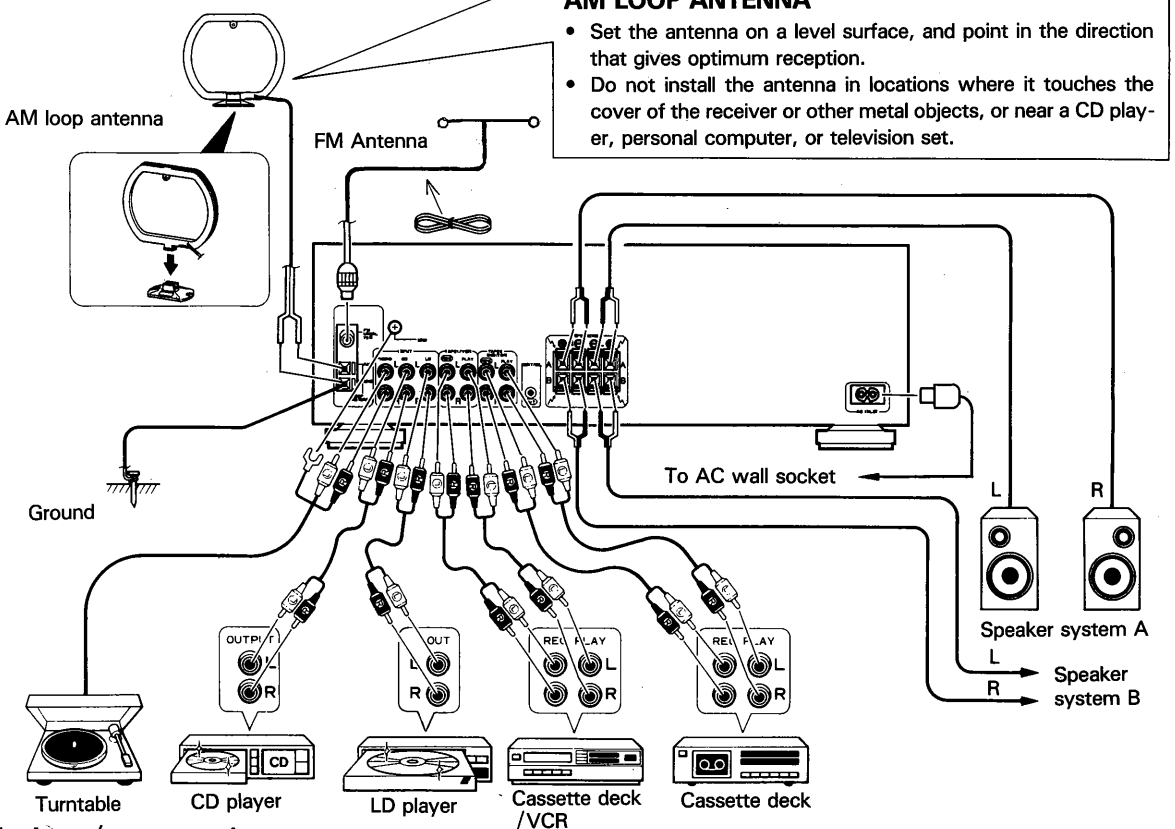


CONNECTIONS

When not using the unit for a long period, disconnected the power cord.

AM LOOP ANTENNA

- Set the antenna on a level surface, and point in the direction that gives optimum reception.
- Do not install the antenna in locations where it touches the cover of the receiver or other metal objects, or near a CD player, personal computer, or television set.



Connecting the input/output cords

When another stereo component (purchased separately) is connected note the following instructions.

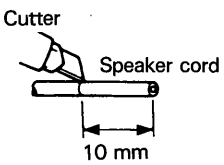
- Connect the plugs properly.Faulty connections can cause noise and also breakdowns and failures.
- The white terminal is for the left channel and the red terminal is for the right channel.

NOTE ABOUT SPEAKER CONNECTIONS

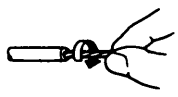
- Speaker systems used should have an impedance of between 8 Ω and 16 Ω. (Between 4Ω and 16Ω in the case of the SX-403RDS.)
- Be sure that connections are secure. Check to make sure that wires do not protrude from their terminals.
- Do not allow the speaker cords to short-circuit. Damage may result to your unit.
- Do not attempt to connect two sets of speakers to a single side (A or B). When using two sets of speakers, connect one set to side A and one set to side B.

Connecting the speaker cords

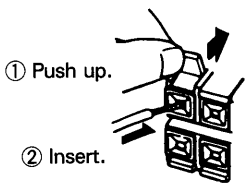
1



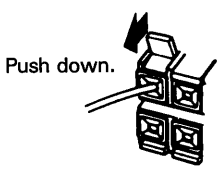
2



3

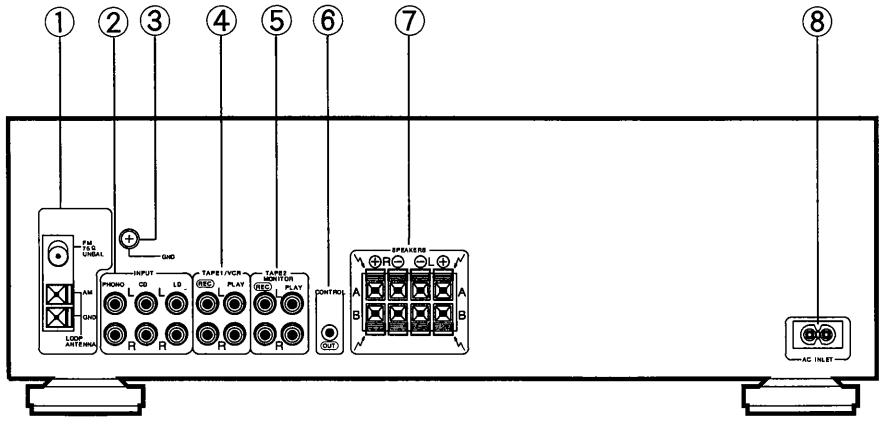


4



REAR PANEL FACILITIES

- The illustration shows SX-403RDS.



① FM/AM ANTENNA terminals

Use these antenna terminals for receiving FM and AM broadcasts.

② INPUT jacks

PHONO ····· Connect to the output cables from a turntable.
CD ····· Connect to the output jacks of a compact disc player.
LD ····· Connect to the output jacks of a LD player.

③ GND terminal

Connect to the ground lead of a turntable.
Use a screwdriver to connect with the ground terminal.

④ TAPE 1/VCR jacks

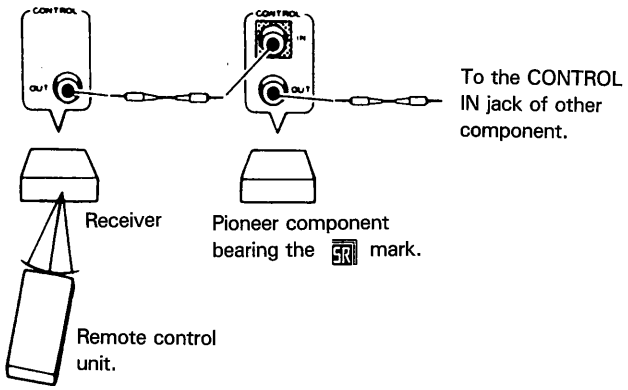
Connect these jacks to the cassette deck or video cassette recorder.

⑤ TAPE 2 MONITOR jacks

Connect these jacks to the cassette deck.

⑥ CONTROL OUT jacks (SX-403RDS and SX-303RDS only)

Connect this jack to other Pioneer components bearing the SR mark when using the remote control of this unit to control the other components.



⑦ SPEAKERS terminals

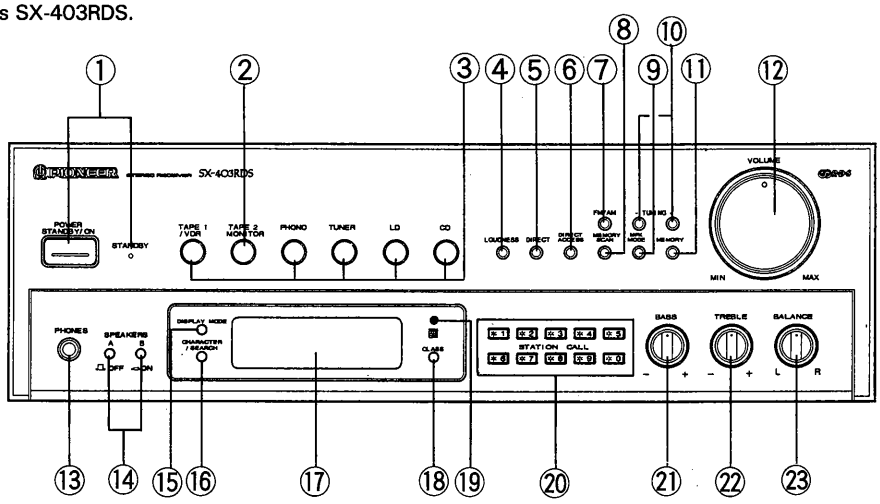
A: Connect to a first set speakers.
B: Connect to a second set of speakers.
NOTE:
No sound will be heard through the speakers when both A and B buttons are depressed if only one set of speakers has been connected to either A or B SPEAKERS terminals.

⑧ AC INLET

Connect the power cord first to the unit, then plug it into the AC wall outlet.

FRONT PANEL FACILITIES

- The illustration shows SX-403RDS.



① POWER (STANDBY/ON) switch/STANDBY indicator (SX-403RDS, SX-303RDS)

This is the switch for electric power.

ON: When set to the ON position, power is supplied and the unit becomes operational.

STANDBY: When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain opetation readiness.

- The accessory remote control unit can also be used to operate STANDBY/ON.

NOTE:

When the power is initially turned ON, muting will be applied to prevent sound from being output for approx. 5 seconds.

① POWER switch/indicator (SX-203RDS)

When this switch is pressed, the indicator showing power is being supplied lights up.

Press the switch again to turn power OFF.

[Timer ON/OFF possible]

When the unit is switched ON, ON/OFF control can be performed by means of the optional timer.

NOTE:

When the power is initially turned ON, muting will be applied to prevent sound from being output for approx 5 seconds.

② TAPE 2 MONITOR button

Press when listening to tape playback with the cassette deck 2.

③ Function buttons

Use to select playback source.

[TAPE 1/VCR] – Press when listening to tape playback with the cassette deck 1 or video cassette recorder.

[PHONO] – Press when listening to record playback on a turntable.

[TUNER] – Press when listening to AM or FM broadcasts with a tuner.

[LD] – Press when listening to laser disc with a laser disc player.

[CD] – Press when listening to compact disc playback with a CD player.

④ LOUDNESS button

Use when listening at low volume levels.

ON: Boosts low and high frequencies to produce a fuller sense of sound, particularly at low volume levels.

OFF: Normal position.

NOTE:

This button does not operate when the DIRECT button is in the ON position (SX-403RDS only).

⑤ DIRECT button (SX-403RDS only)

Use this button when you do not wish to pass the output from input terminal through the various frequency adjusting circuits (TREBLE, BASS and LOUDNESS). When this button is on, the BALANCE control does not operate.

⑤ RF ATT button (SX-303RDS/SX-203RDS only)

Set this button to ON when receiving strong FM signals (near-by stations) to reduce sound distortion.

Normally, this button should be set to OFF.

This button has no effect on reception of AM broadcasts.

NOTE:

- *This button's status is preset for each station in station memory.*

⑥ DIRECT ACCESS tuning button

When this button is pressed, the STATION CALL buttons function as ten-key number buttons for direct input of the desired reception frequency. Press again to cancel this mode.

⑦ FM/AM selector button

This button is used to select either AM or FM reception.

⑧ MEMORY SCAN button

This button is used for station memory scan.

MAMORY SCAN is not executed at the time of SLEEP timer operation.

⑨ MPX MODE selector button

Use to select the auto stereo mode or monaural mode when listening to FM broadcasts. The monaural mode has been selected when the FM MONO indicator is lighted.

Auto stereo mode:

Normally leave in this mode for reception. When a stereo FM broadcast is received, it will be automatically reproduced in stereo sound.

Monaural mode:

When receiving distant stations or stations with weak broadcast signals, the input signal may be weak, thus resulting in increased noise during FM stereo broadcasts. In this event, setting the receiver to the monaural mode will reduce the noise. In this case, however, FM stereo broadcasts will be reproduced in monaural sound.

NOTE:

This button has no effect on reception of AM broadcasts.

⑩ TUNING buttons (−, +)

Use for tuning. Press the buttons to change the frequency display (3-speed Accel Tuning)

In the Manual Name input mode and PTY search mode, use to select characters and program types.

⑪ MEMORY button

Pressing this button will result in the memorization of the current broadcast band, reception frequency, and FM AUTO/MONO mode.

NOTE:

The MEMORY button does not function during SLEEP timer operation.

⑫ VOLUME control

Use to adjust volume level.

⑬ PHONES jack

Connect the plug on your headphones to this jack. To listen to a program through the headphones, set both SPEAKERS A and B switches to the OFF position.

⑭ SPEAKERS (OFF, ON) buttons

These are used to select the speaker through which you wish to listen.

A: When the speakers connected to A terminals are in use.

B: When the speakers connected to B terminals are in use.

- Turn both A and B speakers to OFF position when only the headphones are in use.

NOTE:

No sound will be heard through the speakers when both A and B buttons are pressed if only one set of speakers has been connected to either A or B SPEAKERS terminals.

⑮ DISPLAY MODE button

Use only during FM reception. Use this to switch between display modes. Each time you press it, the display changes as follows.

→ RT mode
↓ Displays PS → RT → Returns to PS.
PS mode
↓
PTY mode
↓
FREQ (Frequency) mode

- This button does not function when the SLEEP button of the remote control unit is ON.

⑯ CHARACTER/SEARCH button

When receiving an AM broadcast, or when in the FM RT, PS modes:

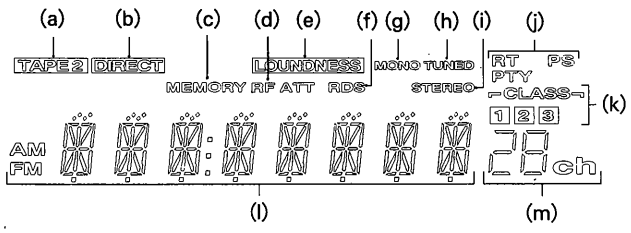
Press the button, "INPUT" is displayed, and the mode switches to manual station name input.

When in the FM PTY mode:

Press the button, "SEARCH" is displayed, and the mode switches to program type search.

- This button does not function when the SLEEP button of the remote control unit is ON. This button does not function at the time of frequency mode.

⑰ OPERATION DISPLAY panel



(a) TAPE 2 monitor indicator
(b) DIRECT indicator (SX-403RDS only)
(c) MEMORY indicator
(d) RF ATT indicator
(e) LOUDNESS indicator
(f) RDS indicator
(g) MONO indicator
(h) TUNED indicator
(i) STEREO indicator
(j) RT, PS, PTY indicator
(k) CLASS indicator
(l) Frequency, function, character display
(m) Channel display

⑱ CLASS button

Use to switch between preset memory classes 1 to 3. In each class, one station can be memorized in each of the 1 to 10 STATION CALL buttons, enabling a total of 30 stations to be memorized.

⑲ Remote sensor

⑳ STATION CALL buttons

These buttons are used to preset and recall desired broadcasting stations and direct access tuning.

㉑ BASS tone control

Use to adjust the low-frequency tone. The center position is the flat(normal) posion. When tuned to the right, low-frequency tones are emphasized.

NOTE:

- *This control does not operate when the DIRECT button is in the ON position. (SX-403RDS only)*

㉒ TREBLE tone control

Use to adjust high-frequency tone. The center position is the flat(normal) position. When tuned to the right, high-frequency tones are emphasized.

NOTE:

- *This control does not operate when the DIRECT button is in the ON position. (SX-403RDS only)*

㉓ BALANCE control

Should normally be left in the center position. Adjust balance if the sound is louder from one of the speakers. If the rights side is louder, turn toward the L position and if the left side is louder, turn toward the R position.

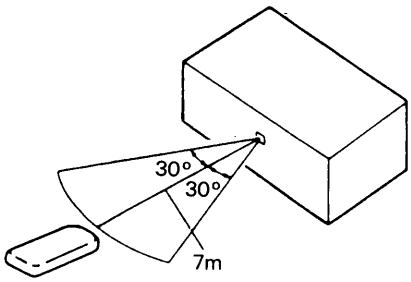
NOTE:

- *This control does not operate when the DIRECT button is in the ON position. (SX-403RDS only)*

REMOTE CONTROL UNIT FACILITIES

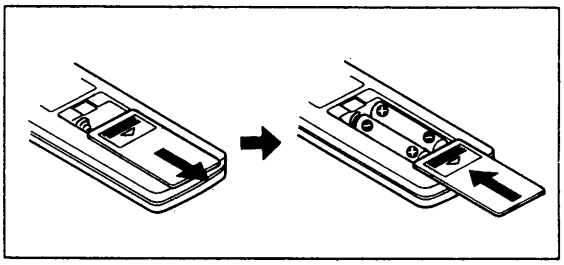
REMOTE CONTROL RANGE

When operating the remote control unit, point the front of the unit at the front panel of the receiver. The remote control unit may be used within a range of about 7 meters from the remote sensor, within angles of up to about 30 degrees.
Remote control will not be possible if there is an obstacle between the remote control unit itself and the remote sensor window in the receiver. Performance of the remote control unit is adversely affected in the presence of strong fluorescent light. Keep such lights away, specially from the sensor window.



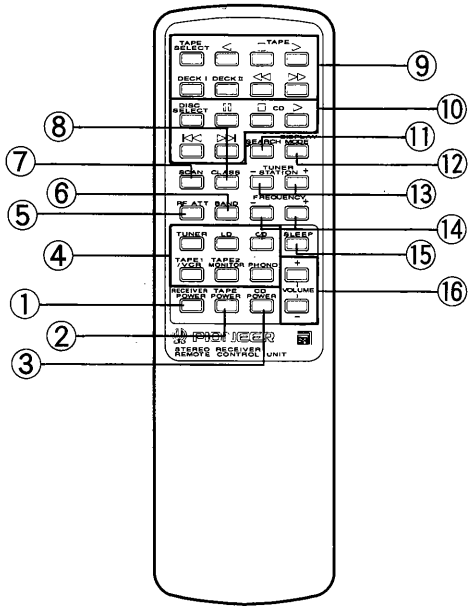
LOADING BATTERIES

1. Open the rear cover.
2. Install size "AA" (IEC R6P) batteries correctly matching polarity.
3. Close the cover.



Incorrect use of batteries may lead to leakage or rupture. Always be sure to follow these guidelines:

A: Always insert batteries into the battery compartment correctly matching the positive (+) and negative (−) polarities, as indicated inside the compartment.
B: Never mix new and used batteries.
C: Batteries of the same size may have different voltages, depending on their type. Do not mix different type of batteries.



This remote control unit can be used to operate some functions of Pioneer SR marked CD players and cassette deck.

① RECEIVER POWER button
② TAPE POWER button

Turns power ON/OFF to the tape deck connected to the unit.

③ CD POWER button

Turns power ON/OFF to the CD player connected to the unit.

④ Function buttons

TUNER: To select tuner.
LD: To select LD player.
CD: To select CD player.
TAPE 1/VCR: To select first tape deck or video cassette recorder.
TAPE 2 MONITOR: To select second tape deck which connected TAPE 2 MONITOR jacks.
PHONO: To select turntable.

⑤ RF ATT button

⑥ BAND button

To select either FM or AM broadcast.

⑦ SCAN button

Scans memorized stations.

⑧ CLASS button

⑨ DECK operation buttons

TAPE SELECT:	Selects tape to be played back. (This functions only when a multi-cassette changer is used.)
◄ TAPE ► :	Reverse and Forward playback (Set the TAPE function button.)
■:	Stop
DECK Ⅰ:	DECK Ⅰ selection.
DECK Ⅱ:	DECK Ⅱ selection.
◄◄:	Rewind in forward mode, fast forward in reverse mode.
►►:	Fast forward in forward mode, rewind in reverse mode.

NOTES:

- *To operate the cassette deck, first press the Deck Ⅰ or Deck Ⅱ button to select the desired deck. Then press the correct control buttons.*
- *To operate the single deck, first the Deck Ⅱ button. Then press the correct control buttons.*
- *Refer to your cassette deck's operating instructions for details.*

⑩ CD operation buttons

DISC SELECT:	DISC selection.
▮▮:	Pause.
■:	Stop.
►:	Play.
⏮, ⏭:	Track search.

NOTE:

- *Note that the DISC SELECT button on the accessory remote control unit may not function, depending on the CD player used.*
- *Refer to your CD player's operating instructions for details.*

⑪ SEARCH button

When this button is switched ON, change to PTY is made independent of the operation status of this unit and search mode will be entered.

⑫ DISPLAY MODE button

Changes Display.

⑬ TUNER STATION +/− buttons

Before operation, memorize broadcast stations in the STATION CALL buttons. (see page 13)

+: Station change in order in the upward direction.
−: Station change in order in the downward direction.

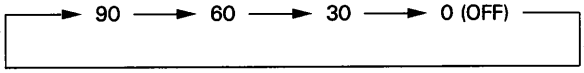
⑭ FREQUENCY +/− buttons

Used when changing the frequency.

+: Frequency change in order in the upward direction.
−: Frequency change in order in the downward direction.

⑮ SLEEP button

Activates the SLEEP timer. The length changes in the following manner each time the button is pressed:



Unit: minutes

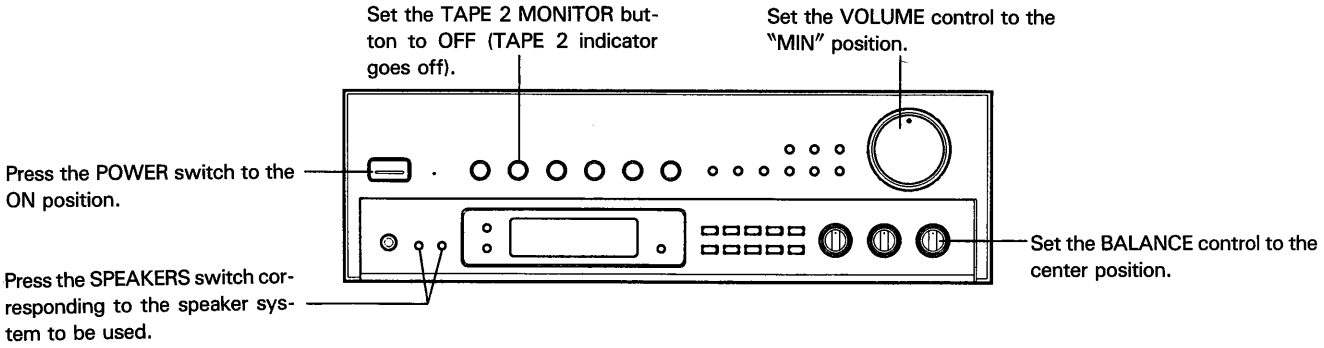
During SLEEP timer operation, SLEEP is displayed on the receiver OPERATION DISPLAY.

When the SLEEP timer is set, the display brightness is reduced to one half of the present brightness.

⑯ VOLUME +/− button

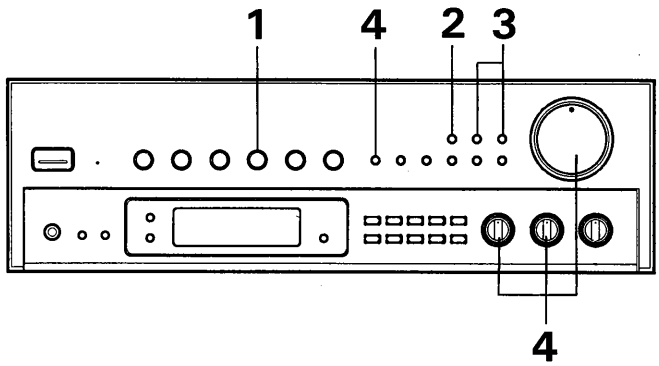
SETTING THE UNIT PRIOR TO OPERATION

- Before operating the unit, be sure to set it as shown below.


Set the TAPE 2 MONITOR button to OFF (TAPE 2 indicator goes off).
Set the VOLUME control to the "MIN" position.
Press the POWER switch to the ON position.
Press the SPEAKERS switch corresponding to the speaker system to be used.
Set the BALANCE control to the center position.

LISTENING TO THE BROADCASTS

- Check that all terminals are properly connected before switching on the unit.



MANUAL/AUTO TUNING (FM/AM reception)

1. **Press the TUNER button of the function buttons.**
2. **Press the FM/AM selector button to select your desired broadcasting.**
3. **Use the TUNING buttons to locate the frequency of the desired station.**

[Manual tuning]
Press TUNING button and release it quickly. The frequency will change by one step each time the button is pressed. Press as many times as necessary to tune in the desired station.
Steps change in the following way. FM: 0.05 MHz, AM: 9 kHz.

[Auto tuning]
Press buttons until the frequency starts to change, then release it. The tuner will automatically search for a broadcasting station and stop when one is found.
To search for another station, press again.

[High speed manual tuning]
Keep TUNING buttons pressed. The frequency changes continuously, and stops when the button is released.
NOTE:
The TUNED indicator will not function for broadcasts received over long distances or when signals are weak.

4. **Adjust the volume with the VOLUME control and the tone with TREBLE tone control, BASS tone control, and LOUDNESS button.**

When Receiving FM Broadcasts:

- If there is distortion because the radio signal is too strong, press the RF attenuator (RF ATT) button to light the RF ATT indicator.
- If there is too much noise during reception of an FM stereo broadcast, press the MPX MODE selector button to light the MONO indicator. Switching to monaural reception results in clear reception.

Note on Auto Tuning

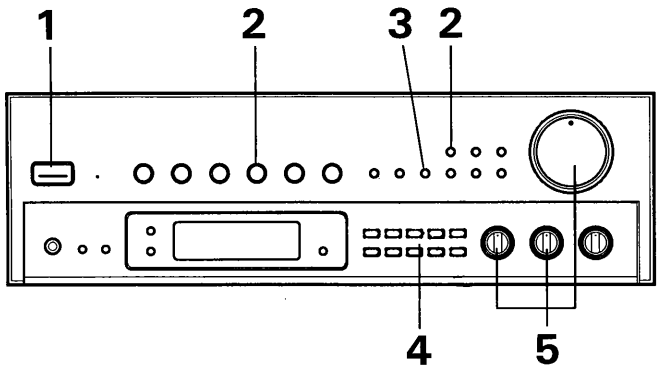
- Because of high sensitivity of this unit, it may automatically stop even at very weak overseas stations. The same can happen with aggregate radio noise emitted in cities.
- During reception of an AM broadcast, if it frequently stops when presetting stations with auto tuning, auto tuning of only strong local stations is possible by changing the direction of the loop antenna or folding it down.
  After presetting, move the loop antenna back to the position where it is pointing in the best direction as before.
- Preset extremely weak stations with manual tuning.

The TUNED Indicator

When the TUNED indicator is not lit, reception is not possible even if the tuning frequency is correct. This is because the antenna terminal input is too weak. Check whether the antenna cable is firmly connected. If it is, consult your nearest dealer and install an outdoor antenna.

DIRECT ACCESS TUNING

LISTENING TO BROADCASTS USING DIRECT ACCESS TUNING



When you know the frequency of the desired station, the frequency can be input directly using the STATION CALL (number) buttons in the following way:

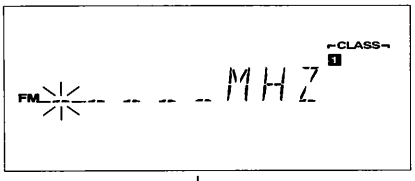
1. Press the POWER switch to the ON position.

NOTE:
Be sure to turn the TAPE 2 MONITOR button OFF when listening to AM or FM broadcasts.

2. Press the TUNER button and select either FM or AM using the FM/AM selector button.

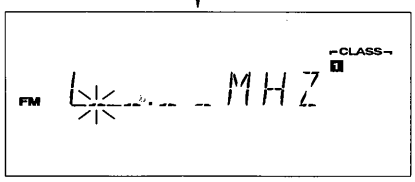
3. Press the DIRECT ACCESS tuning button.
If you do not perform any operations within five seconds of pressing the DIRECT ACCESS button, direct access is canceled.

4. Input the desired station frequency using the STATION CALL buttons.
Example 1: To receive FM 106.00 MHz



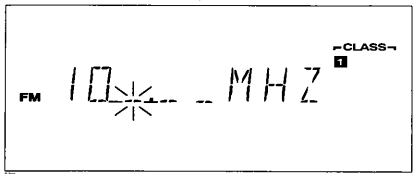
DIRECT ACCESS

Press the DIRECT ACCESS tuning button.



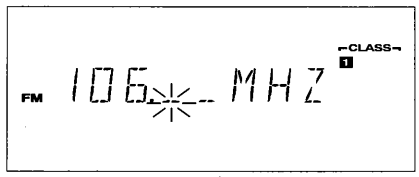
*1

Press the button * 1



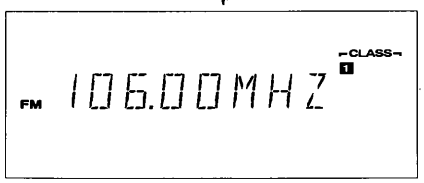
*0

Press the button * 0



*6

Press the button * 6



*0

Press the button * 0 twice

5. Adjust the volume with the VOLUME control and the tone with TREBLE tone control, BASS tone control and LOUDNESS button.

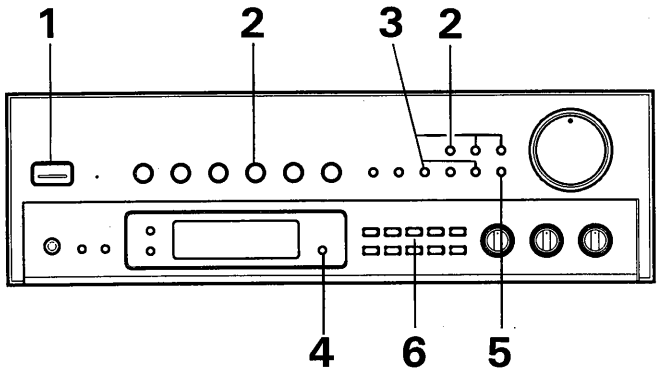
To cancel frequency input

Direct access is canceled when the DIRECT ACCESS tuning button is pressed again.
Under the following conditions direct access is canceled and the unit returns to the condition in effect before direct access was selected:
① If there is no key input for about five seconds after the DIRECT ACCESS tuning button was pressed.
② If more than about five seconds elapse between number input.

PRESET TUNING

FREQUENCY PRESETTING

10 stations can be preset in each of the 3 classes , for a total of 30 stations presets.
CLASS 1 = 1 to 10 ch
CLASS 2 = 1 to 10 ch
CLASS 3 = 1 to 10 ch



1. Press the POWER switch to the ON position.

NOTE:
Be sure to turn the TAPE 2 MONITOR button OFF when listening to AM or FM broadcasts.

2. Press the TUNER button and set the FM/AM selector to either FM or AM.

3. Tune in the desired station.
- See the section "DIRECT ACCESS TUNING" for information on reception using the Direct Access Tuning mode.
- See the section "MANUAL/AUTO TUNING" for information on reception using the Manual tuning mode.
  In addition to station frequencies, the MPX MODE (AUTO/MONO) can also be preset.

4. Select the desired class (1—3) with the CLASS button.

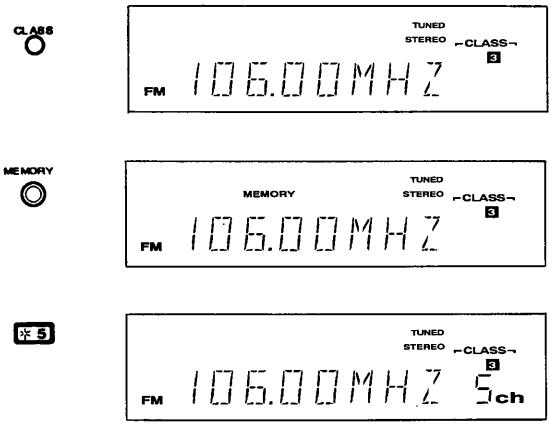
5. Press the MEMORY button.
The MEMORY indicator will light.

6. Press the STATION CALL button into which you wish to preset the station.
- Press the STATION CALL button while the MEMORY indicator is lighting (about 5 seconds).
- Use the STATION CALL buttons (*1 — *9, *0) to select a preset channel.

7. Repeat steps 2 to 6 to preset additional stations.
A total of 30 AM and FM stations may be preset. When you store a new preset, it takes the place of the previously stored station (if any).

- If a station is memorized with STATION CALL buttons at a position where a station was already memorized, the previous contents are erased and the new data is stored in memory.
- If you press the CLASS button while the MEMORY indicator is lit, CLASS indication will change.
- If you press the STATION CALL button at this point, the station will be preset in the selected class.

Example:
Presetting an FM 106.00 MHz station into class 3 with STATION No. (CH) 5.



PRESET STATION TUNING

1. Select the class number with the CLASS button.
2. Press the STATION CALL button into which the desired station has been memorized.

NOTES:
- *The contents of preset memory will be preserved for several days, even if the receiver's power cord is unplugged.*
- *If a preset station has been erased, preset it again.*

Last station memory
- When POWER switch is pressed to turn power on, the last station received before the power was turned off will be received again.
- If the power is ON and one of BAND selector buttons is pressed, the last station received on that band will be received again.

Memory scan function
Press the MEMORY SCAN button and preset broadcast stations are recieved for several seconds in the order of their STATION CALL numbers in CLASS. Press again to stop.

RDS (Radio Data System) BROADCAST RECEPTION

What is RDS (Radio Data System)?
In the RDS system, FM broadcast stations transmit such information as station name and program type in addition to audio signals. This unit receives and displays the following three kinds of data.

RT (Radio Text) data

- A message transmitted from the broadcast station using a maximum of 64 characters.

PS (Program Service Name) data

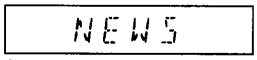
- This refers to the broadcast station name transmitted by an broadcast station.

PTY (Program Type) data

- During reception of an program, this data indicates the type of program.

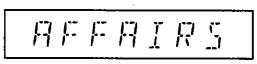
The following are the 15 PTY data titles transmitted.

News:



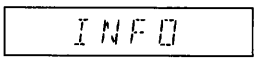
Short accounts of facts, events and publicly expressed views, reportage and actuality.

Current affairs:



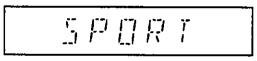
Topical program enlarging upon the news. Presentation styles, include documentary, debate, analysis.

Information:



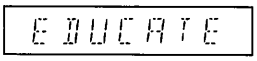
General information and advice, including Meteorological Reports/Forecasts, Consumer affairs, Medical help, etc.

Sport:



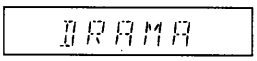
Program concerned with any aspect of Sport.

Education:



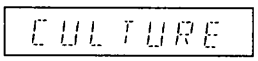
Program intended primarily to educate, of which the formal element is fundamental.

Drama:



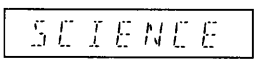
All radio plays and serials.

Culture:



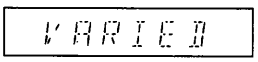
Aspects of National or Regional culture, including Religious affairs, Philosophy, Social Science, Language, Theatre, etc.

Science:



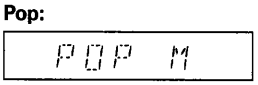
Programs about the Natural Sciences and Technology.

Varied:



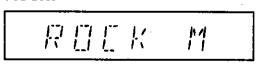
Mainly speech – based, lightentertainment programs, such as Quizzes, Panel Games, Personality interviews, Comedy and Satire.

Pop:



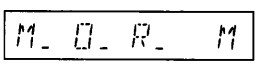
Commercial music of current popular appeal, often featuring the current record sales charts.

Rock:



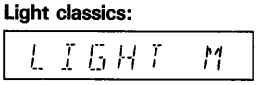
Contemporary modern music, usually written and performed by young musicians.

M.O.R.:



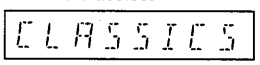
(Middle of the Road Music). "Easylistening" music, often vocal and usually of short duration (< 5 min.).

Light classics:



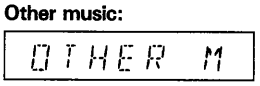
Classical Music for nonspecialist appreciation. Examples are instrumental music and choral works.

Serious classics:



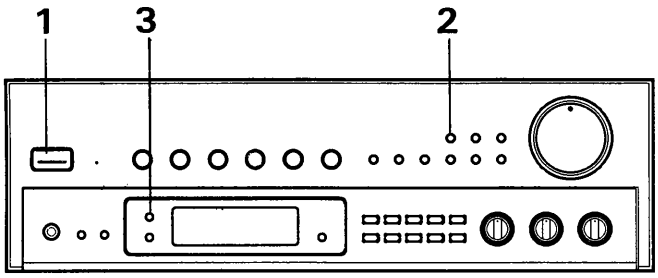
Performances of major orchestral works, symphonies, chamber music etc., and including Grand Opera.

Other music:



Musical styles other than above categories. For example, Jazz, R & B, Folk, Country and Reggae.

RDS DATA DISPLAY



1. Turn the POWER switch ON.

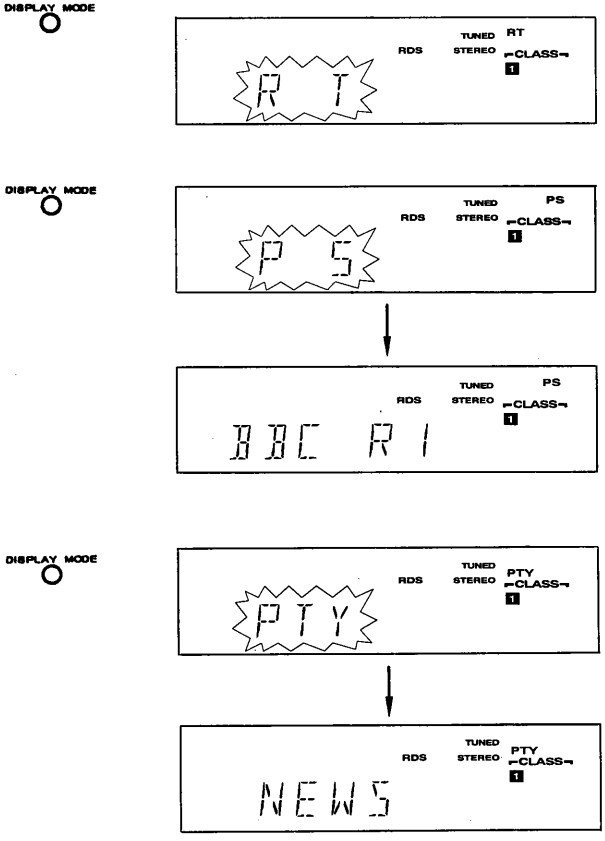
2. Select FM using the FM/AM selector button.

If the received broadcast station transmits RDS data, the RDS indicator lights, and the data of the display mode is automatically displayed in the bottom right of the display.

3. Press the DISPLAY MODE button, and the display changes.

DISPLAY MODE

- RT mode ····· "RT" flashes and the following data is displayed in sequence. PS (Program Service Name) → RT (Radio Text) scroll display → Returns to PS; repeat.
- PS mode ····· "PS" flashes on the display, and then the broadcast station name is displayed.
- PTY mode ····· "PTY" flashes on the display, and then PTY data is displayed, indicating the type of program.
- FREQ mode (Frequency)

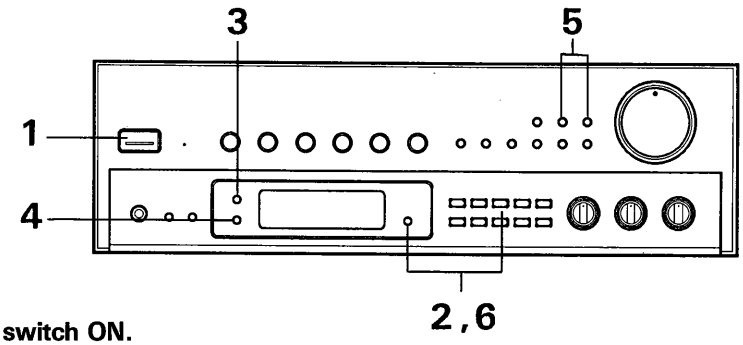


NOTES:

- *In the RT mode, should any noise be picked up while displaying the RT scroll, some characters may temporarily be incorrectly displayed.*
- *In the RT mode, when no RT data is transmitted from a broadcast station, "NO RADIO TEXT DATA" is displayed.*
- *In PTY mode during RDS broadcast reception, there are cases where "NO DATA" is displayed. In this case, it will automatically switch to PS mode after a few seconds (if PS mode is available.)*
- *When reception conditions are strong, and RDS data is incorrectly displayed, use the RF ATT button to achieve the most comfortable sound.*
  After that, RDS data may be correctly displayed.
- *Depending on the broadcast station, numerous program service names (PS) may be transmitted in succession. In this case, when you switch to the RT mode, only some of the PS data will be displayed, so switch to the PS mode.*
- *When the RDS indicator is not lit, and you are in the RT mode, only station names stored in memory manually, if any, will be displayed.*

MEMORIZING A DESIRED BROADCAST STATION NAME (Manual Station Name Memory)

For each of the 30 preset AM/FM channels, up to four characters can be memorized for preferred broadcast station names. Even if PS data is already received using RDS, an FM broadcast station name can still be memorized.
In this case, the memorized name takes priority over the PS data name.



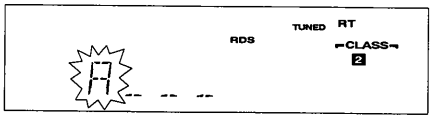
1. **Turn the POWER switch ON.**
2. **Select the desired broadcast station with the CLASS button and STATION CALL button.**
3. **For FM broadcasts, press the DISPLAY MODE button to select the RT mode or PS mode.**
4. **Press the CHARACTER/SEARCH button.**
   "INPUT" lights in the display, and the mode switches to manual memory.
5. **When "INPUT" is displayed, use the TUNING +/− buttons to select a desired character within 5 seconds.**
   ① The first character in the display changes each time you press the TUNING +/− buttons. Select character as desired.
   ② When you have selected your desired character, press the MEMORY button.
   This enters the first character and awaits input of the next character for memorization.

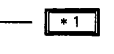
Repeat this procedure until all four characters have been entered. After the four characters have been entered, the MEMORY indicator automatically lights.

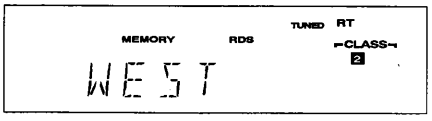
6. **Press the desired STATION CALL button while the MEMORY indicator is lit.**

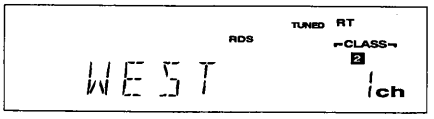
The MEMORY indicator light goes off, and the characters are memorized.

- When memorizing a station name during AM broadcast reception, perform procedures 1, 2, and 4 to 6 as above.









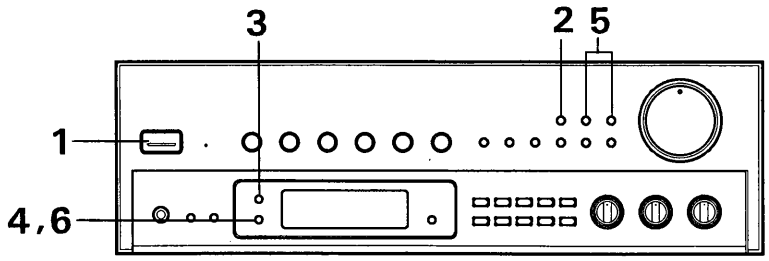
When erasing a memorized station name, use the following procedures.

① Use a STATION CALL button to select the broadcast station with the station name you want to erase.
② Press the CHARACTER/SEARCH button twice.
③ Press the MEMORY button.
④ Press the STATION CALL button in procedure ① again.
The station name is then erased.

- When you want to change a memorized station name, after selecting desired broadcast station, register the new name using procedures 2 to 6.
- For greater convenience, record memorized station names in the STATION CALL button "memo" on page 18.

SEARCHING FOR A DESIRED PROGRAM BY PROGRAM TYPE (Program Type Search)

You can search for FM broadcasts of a desired program type (PTY)



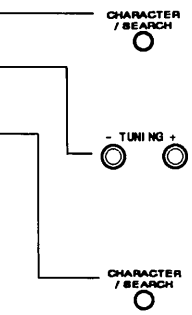
1. **Turn the POWER switch ON.**
2. **Select FM broadcast using the FM/AM selector button.**
3. **Press the DISPLAY MODE button to select the PTY mode.**

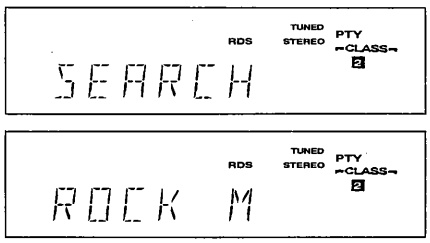
"PTY" flashes in the display, and if there is a program type, it will be displayed.

4. **Press the CHARACTER/SEARCH button.**

"SEARCH" lights in the display.

5. **Select the desired program type using the TUNING +/– buttons.**
6. **When your desired program type is displayed, press the CHARACTER/SEARCH button.**





Search begins.

Frequency is raised 50kHz over the current frequency, and broadcast stations conforming to the input program type are automatically received. If more than one station of the same program type is found, they are received one after the other for 6 seconds each, starting with any presets. When the station you want is received, press the CHARACTER/SEARCH button. Search stops, and reception of that station continues.

NOTE:

If the selected program type broadcast is not found, by keeping the CHARACTER/SEARCH button pressed in, the search continues.

RDS (Radio Data System) BROADCAST RECEPTION

STATION CALL button "memo"

It is recommended that you make a note of the preset stations.

CLASS1	S.C. button	*1	*2	*3	*4	*5
	Station name					
	Frequency					
	S.C. button	*6	*7	*8	*9	*0
	Station name					
	Frequency					
CLASS2	S.C. button	*1	*2	*3	*4	*5
	Station name					
	Frequency					
	S.C. button	*6	*7	*8	*9	*0
	Station name					
	Frequency					
CLASS3	S.C. button	*1	*2	*3	*4	*5
	Station name					
	Frequency					
	S.C. button	*6	*7	*8	*9	*0
	Station name					
	Frequency					

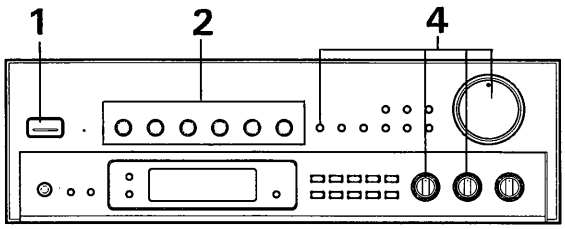
RDS data character display:

Character	!	"	%	&	'	(	)	*	+	,	-	.	/	0	1	2	3
Display indications																	
Character	4	5	6	7	8	9	:	=	?	@	A	B	C	D	E	F	G
Display indications																	
Character	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
Display indications																	
Character	Y	Z	[	\	]	_	Ñ	Ç	ß	¡	IJ	£	$	±	¿	°	Á
Display indications																	
Character	À	É	È	Í	Ì	Ó	Ò	Ú	Ù	Â	Ä	Ë	Î	Ï	Ô	Ö	Ê
Display indications																	
Character	Û	Ü	Ã	Å	Æ	Œ	Õ	ϕ	∓								
Display indications																	

NOTE:

This unit converts lower case characters transmitted by broadcast stations to upper case characters.

TO LISTEN TO OTHER MUSIC SOURCES



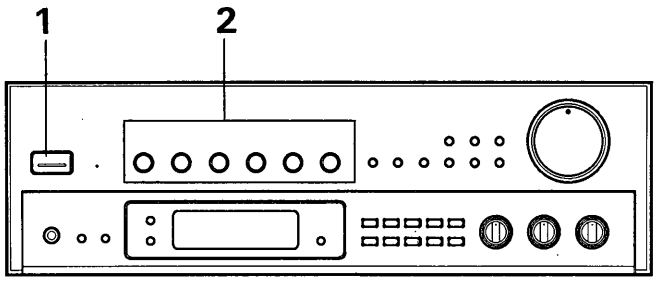
1. **Press the POWER switch to the ON position. Also turn on the power to the stereo components you wish to use.**
2. **Use the function buttons and TAPE 2 MONITOR button as appropriate to select the desired program source.**

Select function according to the table on the right.

3. **Operate the appropriate stereo component to play back the program source.**
4. **Adjust the volume with the VOLUME control and the tone with TREBLE tone control, BASS tone control and LOUDNESS button.**

	Function buttons	TAPE 2 MONITOR button
To listen to a tape on the cassette deck connected to TAPE 2 MONITOR jacks.	—	ON
To listen to TAPE1/VCR	TAPE 1 /VCR	OFF
To listen to the component connected to LD jack	LD	OFF
To listen to a CD	CD	OFF
To listen to records	PHONO	OFF

TAPE RECORDING



You can record an FM or AM broadcast, or a sound source connected to the LD, CD, PHONO terminals.

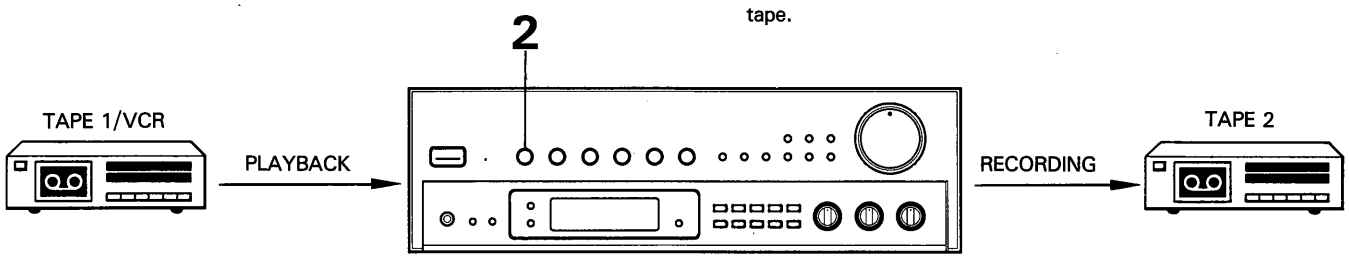
1. **Press the POWER switch to the ON position.**
2. **Select the sound source to be recorded.**
3. **Operate the cassette deck connected to the TAPE 1/VCR or TAPE 2 MONITOR terminals.**
4. **Turn on (or start) the sound source to be recorded.**

- For details of operating the cassette deck, read the operating instructions of the cassette deck.

COPYING TAPES

When two cassette decks are used, the sound played back on the deck connected to the TAPE 1/VCR jacks can be recorded on the deck connected to the TAPE 2 MONITOR jacks.

- To make a tape copy with contents identical to the original tape.
- To edit a recording of an FM broadcast in order to cut out unwanted commercials, recording only the desired material onto another tape.



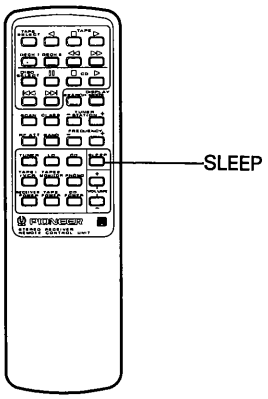
[When using two cassette decks]

1. **Load the playback tape (i.e. the pre-recorded tape) in the deck connected to the TAPE 1/VCR jacks, and the tape to be recorded in the other deck connected to the TAPE 2 MONITOR jacks.**
2. **Press the TAPE 1/VCR button.**
3. **Operate the cassette decks to begin copying.**

Set the cassette deck with the non-recorded tape to the recording mode, and set the cassette deck with the original tape to the playback mode.

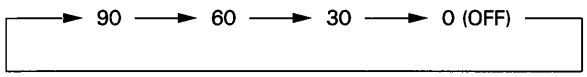
SLEEP TIMER

After the set time has elaped, the power goes off automatically.



HOW TO SET THE SLEEP TIMER

Press the SLEEP button on the remote control unit.
Each time the button is pressed, the mode changes as follows:



Unit: minutes

- When the SLEEP timer is set, the display brightness is reduced to one half of the present brightness.

TROUBLESHOOTING

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

Symptom	Cause	Remedy
Power does not come on even when POWER switch is pressed.	• Power cord is disconnected.	• Connect cord securely.
Control was not possible regardless of what operation button was pressed.	• Static electricity affected the unit when the air was dry, such as in winter.	• Unplug the power cord of the unit from the AC wall outlet, then plug it in again. • If static electricity is pronounced, it is recommended that you operate the unit using the remote control unit.
No sound is produced, even when Function switch is selected.	• VOLUME control is set to (MIN). • Speaker connecting wires are disconnected from speaker terminals. • One or both of the input cords are disconnected. • TAPE 2 MONITOR button is in the ON position. • SPEAKER A and B buttons are OFF.	• Turn the VOLUME control toward the right. • Connect wires to terminals securely. • Connect input cords securely. • Press the button to OFF position. • Switch the SPEAKER A and B buttons ON.
Sound is produced from one speaker only.	• BALANCE control is set too far to one side or the other. • One of the speaker connecting wires or input cords is disconnected.	• Set BALANCE control to center position. • Connect wires and cords securely.
Noise is produced during reception of AM broadcasts when the power switch of other components is turned ON or OFF.	• AM loop antenna picks up electrical noise created by switch contacts.	• Place AM loop antenna as far away as possible from this and other components.
High noise level.	• Station has not been tuned in to correct frequency. • Antenna has not been connected or has become disconnected. **FM reception** • Accessory FM antenna remains bundled up. • Weak broadcasting station signals. • Noise picked up from other equipment (or, in particular, from passing automobiles). • Multipath results when signals from broadcasting station entering antenna directly are mixed with signals which have been reflected by mountains or high buildings on their way to antenna. this results in distorted sound and noise. **AM reception** • AM antenna not pointing in right direction. • Weak broadcasting station signals. • Noise being picked up from other equipment (especially electrical appliances using motor or fluorescent lights).	• Tune the station correctly. • Connect the antenna securely. • Stretch the antenna taut and locate in direction yielding optimum reception. • Replace accessory FM antenna with outdoor FM antenna. • Try altering direction and mounting position of antenna. If an outdoor antenna has been erected, place it as far as possible from passing traffic and replace connecting cable with 75 Ω coaxial cable. • Change AM antenna's direction and find a position where reception is improved. • Erect outdoor AM antenna or connect ground wire. • Stop using appliances generating noise or remove them from vicinity of stereo equipment.
No auto stop.	• Input signals are not strong enough.	• If an accessory antenna is used, change over to an outdoor antenna. • Perform manual tuning.
Remote control does not work.	• Batteries are dead or no batteries in remote control unit. • Poor angle or too great a distance from the remote sensor window. • There is an obstacle between you and the remote sensor window. • A fluorescent light is shining on the remote sensor window.	• Insert new batteries. • Use within 7 meters and within a 30 degree angle of the remote sensor window. • Change your position or move the obstacle. • Turn off the light.

Abnormal functioning of this unit may be caused by lightning, static electricity, or other external interference. To restore normal operation, turn the power off and then on again, or unplug the AC power cord and then plug it in again.

SPECIFICATIONS

Amplifier Section

Continuous Power Output (DIN)
- (SX-403RDS) 1 kHz, T.H.D. 1%, 4 Ω ····· 85 W + 85 W
- (SX-303RDS) 1 kHz, T.H.D. 1%, 4 Ω ····· 60 W + 60 W
- (SX-203RDS) 1 kHz, T.H.D. 1%, 4 Ω ····· 40 W + 40 W

Continuous Power Output (both channel driven)*
- (SX-403RDS) 20 Hz – 20 kHz, T.H.D. 0.07%, 8 Ω ··· 60 W + 60 W
- (SX-303RDS) 40 Hz – 20 kHz, T.H.D. 0.09%, 8 Ω ··· 50 W + 50 W
- (SX-203RDS) 40 Hz – 20 kHz, T.H.D. 0.09%, 8 Ω ··· 35 W + 35 W

Dynamic power output (with EIA test signal)
- (SX-403RDS) 2/4/8 Ω ····· 120 W/110 W/80 W
- (SX-303RDS) 4/8 Ω ····· 90 W/70 W
- (SX-203RDS) 4/8 Ω ····· 60 W/50 W

Input (Sensitivity/Impedance)
- PHONO ····· 2.5 mV/47 kΩ
- CD, LD, TAPE 1/VCR, TAPE 2 ····· 200 mV/22 kΩ

Phono Overload Level (T.H.D. 0.1%, 1 kHz)
- PHONO ····· 100 mV

Output (Level/Impedance)
- TAPE 1/VCR REC, TAPE 2 REC MONITOR ····· 200 mV/2.2 kΩ

Frequency Response
- PHONO (RIAA Equalization) ····· 20 Hz to 20, 000 Hz ±0.5 dB
- CD, LD, TAPE 1/VCR, TAPE 2 ····· 10 Hz to 70, 000 Hz $^{+0.5}_{-3.0}$ dB

Signal-to-Noise Ratio (IHF, short circuited, A network)
- (SX-403RDS)
- PHONO MM ····· 81 dB
- (SX-303RDS/SX-203RDS)
- PHONO ····· 72 dB
- (SX-403RDS)
- CD, LD, TAPE 1/VCR, TAPE 2 (DIRECT ON) ····· 105 dB
- TAPE 2 (DIRECT OFF) ····· 100 dB
- (SX-303RDS/SX-203RDS)
- CD, LD, TAPE 1/VCR, TAPE 2 ····· 96 dB

Tone control
- BASS ····· ±10 dB (100 Hz)
- TREBLE ····· ±10 dB (10 kHz)
- LOUDNESS ····· +6 dB (100 Hz at −40dB)
  +4 dB (10 kHz at −40dB)

FM Tuner Section

Frequency range ····· 87.5 MHz to 108 MHz
Usable Sensitivity ····· 14.2 dBf, IHF (1.4 μV/75 Ω)
Sensitivity (DIN)
- MONO ····· 1.0 μV/75 Ω
- STEREO ····· 50 μV/75 Ω

Signal-to-Noise Ratio
- MONO ····· 74 dB (at 80 dBf)
- STEREO ····· 72 dB (at 80 dBf)

Signal-to-Noise Ratio (DIN)
- MONO ····· 60 dB
- STEREO ····· 58 dB

Distortion
- STEREO ····· 0.6% (1 kHz)

Alternate Channel Selectivity ····· 65 dB (400 kHz)
Stereo Separation ····· 40 dB (1 kHz)
Frequency Response ····· 30 Hz to 15 kHz (±1 dB)
Antenna Input ····· 75 Ω unbalanced

AM Tuner Section

Frequency range ····· 531 kHz to 1, 602 kHz
Sensitivity
- IHF, Loop antenna ····· 350 μV/m

Selectivity ····· 25 dB
Signal-to-Noise Ratio ····· 45 dB
Antenna ····· AM Loop Antenna

Miscellaneous

Power Requirements ····· a.c. 240 Volts, 50/60 Hz
Power Consumption (SX-403RDS) ····· 460 W
(SX-303RDS) ····· 290 W
(SX-203RDS) ····· 190 W
Dimensions ····· 420 (W) X 140 (H) X 297.5 (D) mm
Weight (without package) (SX-403RDS) ····· 6.8 kg
(SX-303RDS) ····· 5.6 kg
(SX-203RDS) ····· 4.9 kg

Furnished Parts

FM Antenna ····· 1
AM Loop Antenna ····· 1
Remote control unit (except for SX-203RDS) ····· 1
Dry cell batteries (size "AA" (R6P)) (except for SX-203RDS) ··· 2
Power cord ····· 1
Operating Instructions ····· 1

NOTE:

Specifications and design subject to possible modification without notice due to improvements.

** Measured By Audio Spectrum Analyzer.*

<ARB1480>

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<94B00DF0W00> Printed in <ARB1480-A>